OPTICS COMMUNICATIONS

Volume 196, numbers 1–6, 1 September 2001

Abstracted/Indexed in: Chemical Abstracts/Current Contents: Engineering, Computing and Technology/Current Contents: Physical, Chemical & Earth Sciences/EI Compendex Plus/Engineering Index/INSPEC

Contents

Editorial Guidelines and Instructions to Authors v

Propagation and scattering

A.T. Friberg, T.D. Visser, W. Wang and E. Wolf, Focal shifts of converging diffracted waves of any state of spatial coherence 1

N. Bokor and N. Davidson, Adiabatic shaping of diffuse light with a tapered gradient-index element 9

S.H. Simpson and S. Hanna, Analysis of the effects arising from the near-field optical microscopy of homogeneous dielectric slabs 17

J.M. Saiz, J.L. de la Peña, F. González and F. Moreno, Detection and recognition of local defects in 1D structures 33

S.I. Bozhevolnyi, V.S. Volkov and K. Leosson, Surface plasmon polariton propagation along a 90° bent line defect in a periodically corrugated metal surface 41

R. Micheletto, N. Yoshimatsu, M. Yokokawa, T. An, H. Lee and S. Okazaki, Optical study of a polymeric LED with a nano-sized electrode realized by a modified SNOM setup 47

G. Huss, F. Reynaud and L. Delage, An all guided three-arm interferometer for stellar interferometry 55

Optical information, image formation and analysis, optical computing

I. Freund, Vortex flowers 63

J. Zhou, W. Tang and D. Liu, Analysis of polarization properties of reflection volume holographic grating 77

F. Yuan, D. Song and L. Zeng, Measuring 3D profile and position of a moving object in large measurement range by using tracking fringe pattern 85

H. Furukawa and S. Kawata, Near-field optical microscope images of a dielectric flat substrate with subwavelength strips 93

D.L. Hovhannisyan, Analytic solution of the wave equation describing dispersion-free propagation of a femtosecond laser pulse in a medium with a cubic and fifth-order nonlinearity 103

O. Haeberlé, F. Bicha, C. Simler, A. Dieterlen, C. Xu, B. Colicchio, S. Jacquey and M.-P. Gramain, Identification of acquisition parameters from the point spread function of a fluorescence microscope 109

K. Ichimura, A simple frequency-domain quantum computer with ions in a crystal coupled to a cavity mode 119

S. Lévêque-Fort, J. Selb, L. Pottier and A.C. Boccara, In situ local tissue characterization and imaging by backscattering acousto-optic imaging 127

Optical communications

Y. Zhao and F. Ansari, Quasi-distributed white light fiber optic strain sensor 133

N. Landru, D. Pascal and A. Koster, Modelling of two-dimensional grating couplers on silicon-on-insulator waveguides using beam propagation method 139

S. Hsu, T.-C. Liang and Y.-K. Chen, Optimal design of optically gain-clamped L-band erbium-doped fiber amplifier 149

V.N. Serkin, M. Matsumoto and T.L. Belyaeva, Bright and dark solitary nonlinear Bloch waves in dispersion managed fiber systems and soliton lasers 159

(Continued inside)

0030-4018(20010901)196:1-6;1-X

OPTICS COMMUNICATIONS

Volume 196, numbers 1–6, 1 September 2001

(Continued from back cover)

Z. Tang, R. Zhang and F.G. Shi, Effects of angular misalignments on fiber-optic alignment automation 173

S. Yin, K.-W. Chung and X. Zhu, A novel all-optic tunable long-period grating using a unique double-cladding layer 181

D. Faccio, A. Busacca, D.W.J. Harwood, G. Bonfrate, V. Pruneri and P.G. Kazansky, Effect of core–cladding interface on thermal poling of germano-silicate optical waveguides 187

Atomic and molecular physics

M. Fifirig, Helicity dependence of two-photon ionization by a tricolor field 191

S.N. Bagayev, V.I. Baraulya, A.E. Bonert, A.N. Goncharov and M.R. Seydaliev, Spectroscopy of $^1S_0$–$^3P_1$ transition of magnesium atom in an external absorption cell 201

J.I. Kim and P. Nussenzveig, Collective Rabi oscillations and cold collisions 207

Condensed matter

K.-M. Wang, F. Chen, H. Hu, J.-H. Zhang, F. Lu, B.-R. Shi, Q.-M. Lu and C.-Q. Ma, Waveguide formation in $LiTaO_3$ and LiB_3O_5 by keV hydrogen ion implantation 215

Quantum optics

J.T. Manassah and I. Gladkova, Superradiant amplification from two coupled optically dense two-level slabs 221

Laser physics and laser sources

J. Mes, W. Hogervorst and V. Tugbaev, Travelling-wave nanosecond optical parametric oscillator close to the Fourier-transform limit 229

M.J. Damzen, M. Trew, E. Rosas and G.J. Crofts, Continuous-wave Nd:YVO_4 grazing-incidence laser with 22.5 W output power and 64% conversion efficiency 237

X. Zhong and M.G. Kong, Electron bunching at large wiggler field in a second harmonic waveguide free electron laser 243

J. Wu, G. Iordache, H.D. Summers and J.S. Roberts, Optical characteristics of VCSEL pumped microchip lasers 251

G. Bouwmans, B. Ségard and P. Glorieux, Polarisation dynamics of monomode Nd^{3+}:YAG lasers with Cr^{4+} saturable absorber: influence of the pump polarisation 257

S.V. Serak, H.J. Eichler, A.A. Kovalev and T.A. Davidovich, Passive laser Q-switching using a dye-doped liquid-crystalline layer near total internal reflection 269

Nonlinear optics

G. Urushibata, Y. Tamaki and M. Obara, Generation of highly efficient self-pumped phase conjugation femtosecond pulse using photorefractive $BaTiO_3$:Co crystal 281

L.O. Silva and J.T. Mendonça, Photon kinetic theory of self-phase modulation 285

D. Pang, R. Zhang and Q. Wang, Theoretical analysis of noncollinear phase-matched optical parametric amplifier seeded by a white-light continuum 293

X. Chen, M. Huang, Z. Luo and Y. Huang, Determination of the optimum phase-matching directions for the self-frequency conversion of Nd:GdCOB and Nd:YCOB crystals 299

(Continued on preceding page)

OPTICS COMMUNICATIONS

Volume 196, numbers 1–6, 1 September 2001

(Continued from following page)

R. Gadonas, V. Jarutis, R. Paškauskas, V. Smilgevičius, A. Stabinis and V. Vaičaitis, Self-action of Bessel beam in nonlinear medium 309

S. Qu, Y. Song, C. Du, Y. Wang, Y. Gao, S. Liu, Y. Li and D. Zhu, Nonlinear optical properties in three novel nanocomposites with gold nanoparticles 317

J. Mertz and L. Moreaux, Second-harmonic generation by focused excitation of inhomogeneously distributed scatterers 325

J.J. Soto-Bernal, A.V. Kir'yanov and V.J. Pinto-Robledo, Experimental study of second-harmonic generation by a laser pulse with varying direction of polarization in a type-II synchronism doubling crystal 331

Author index to volume 196 341

Subject index to volume 196 347